<u>IN THE SPECIFICATION</u>

Please replace the paragraph at page 45, prenumbered lines 5-22, with the following rewritten paragraph:

Then, at the next step S3, the program-vector generation section 23 carries out a morphological analysis on pieces of information included in the meta data such as the title and the contents, if necessary, and disassembles them into words. To put it concretely, the program-vector generation section 23 disassembles the movie name included in the meta data as the title into 3 words, i.e., "Tokaidou", "Mitsuya" and "ghost-story". As shown in Fig. 4, the meta data includes information saying: [["]]"59 production of ~~Shinseihou~~ Seihou, Masterpiece of horror show of Japanese film, depicting the world of the famous Mitsuya ghost-story to fullness of formal beauty." In this case, the program-vector generation section 23 extracts words included in this comment as information on the contents. The extracted words are "Seihou", "formal", "beauty", "fullness", "famous", "Mitsuya", "ghost-story", "world", "depicting", "Japanese film", "horror" and "masterpiece".

Please replace the paragraph at page 54, prenumbered lines 1-5, with the following rewritten paragraph:

Subsequently, at the next step S35, the program-vector generation section [[33]] <u>23</u> fixes and sets the generated program vector PP of the first broadcast as a program vector PP identified by the group ID. Finally, the execution of the processing is ended.

Please replace the paragraph at page 58, prenumbered lines 10-15, with the following rewritten paragraph:

Then, at the next step S55, the program-vector generation section [[33]] <u>23</u> fixes the program vector PP of the first broadcast as the program vector PP of the serial drama and

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associates the generated cluster code with the program vector PP. Finally, the execution of the processing is ended.

Please replace the paragraph at page 58, prenumbered line 23, to page 59, prenumbered line 2, with the following rewritten paragraph:

Then, at the next step S57, the program-vector generation section [[33]] 23 associates the generated cluster code with the program vector PP. Finally, the execution of the processing is ended.

Please replace the paragraph at page 109, prenumbered line 11, to page 110, prenumbered line 8, with the following rewritten paragraph:

Subsequently, at the next step S105, the vector-operation section 62 computes a difference between the degree of similarity SimMUP SimUP and the corresponding degree of similarity SimMUP, extracting program vectors PP (or EPG data) for a predetermined number of most similar programs starting with a program having the largest difference as recommendation information, and supplies the recommendation information to the recommendation information output section 49. As described earlier, the degree of similarity SimUP is a cosine distance between a program vector PP and a positive-history vector UP. By the same token, the degree of similarity SimMUP is a cosine distance between a program vector PP and a negative-history vector MUP. For example, the vector-operation section 62 extracts the program vector PP (or the EPG data) of the program having the largest difference. The recommendation information is then cataloged in the recommended-program list 50 as well as output to the television display apparatus 11 and the recording/reproduction apparatus 12. Finally, the execution of the processing represented by this flowchart is ended.

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Please delete Equation 6 at page 118 in its entirety and replace with the following new Equation 6:

$$SimMUP = \frac{epd_1^* \; emd_1^* \; p_1^* \; m_1^* + epd_2^* \cdot emd_2^* \; p_2^* \; m_2^* + \dots}{IPP\|MUP\|} \quad \dots (6)$$

Please replace the paragraph at page 127, prenumbered lines 4-14, with the following rewritten paragraph:

Then, at the next step S145, the vector-operation section 62 examines the degrees of similarity SimUP, which have each been found in the process carried out at the step ~~S143~~ S144 as a sum of cosine distances between a program vector PP and positive-history vectors UP, by comparing the degrees of similarity SimUP with each other. The vector-operation section 62 then extracts a predetermined number of short-distance program vectors PP starting with a vector having the highest degree of similarity SimUP. The predetermined number of extracted program vectors PP is typically 10.

Please replace the paragraph at page 133, prenumbered line 18, to page 134, prenumbered line 11, with the following rewritten paragraph:

Let us assume for example that the large item selected in the process carried out at the step S151 is genre Gm = {Drama, Variety, Sport, Movie, Music, Child program/Education, General culture/Documentary, News/Report, Others}. Let us also assume for example that the number of all programs broadcasted in 1 week is (8, 12, 3, 7, 6, 4, 2, 8, 10) and the number of programs actually viewed by the user is (4, 0, 1, 2, 3, 4, ~~5, 5,~~ 1, 2, 2). In this case, the normalized vector is D = (4/8, 0/12, 1/3, 2/7, 3/6, 4/4, 1/2, 2/8, 2/10) = (0.5, 0, 0.33, 0.28, 0.5, 1.0, 0.5, ~~0.13,~~ 0.25, 0.2). Thus, a component of the normalized vector D equal to 1.0 means that all the programs broadcasted in the predetermined period of time for the

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component have been viewed by the user. On the other hand, a component of the normalized vector D equal to 0 means that none of the programs broadcasted in the predetermined period of time for the component have been viewed by the user.

Please replace the paragraph at page 150, prenumbered line 19, to page 151, prenumbered line 6, with the following rewritten paragraph:

Then, at the next step S196, the user-information-cataloging section 63 determines whether or not all genres have been processed. If the determination result produced in the process carried out at the step S178 S196 indicates that all genres have not been processed, the flow of the processing goes back to the step S191 to again carry out the processes at the step and the subsequent steps. If the determination result produced in the process carried out at the step S196 indicates that all genres have been processed, on the other hand, the execution of the processing represented by this flowchart is ended.

Please replace the paragraph at page 159, prenumbered line 16, to page 160, prenumbered line 5, with the following rewritten paragraph:

Then, at the next step S225, the vector-operation section 62 determines whether or not a program recommended in any one of matching processing 1 to matching processing [[3]] 5, which has been carried out at the step S224, pertains to a group by determining whether or not a program vector PP of the recommended program has information attached thereto to identify the group. As described earlier, examples of the information attached to a program vector PP to identify a group are a group ID and a cluster code. If the determination result produced in the process carried out at the step S225 indicates that the recommended program does not pertain to a group, the execution of the processing represented by this flowchart is ended.

Please replace the paragraph at page 187, prenumbered line 19, to page 188, prenumbered line 6, with the following rewritten paragraph:

Subsequently, at the next step S273, the channel-setting section 123 acquires information on recommended programs for the present time from the ~~program recommendation~~ recommended-program list 98. Then, at the next step S274, on the basis of the information on recommended programs, the channel-setting section 123 generates channel-setting information and outputs the channel-setting information to the television reception apparatus 4 as a control signal. On the basis of the control signal, the television reception apparatus 4 receives a broadcast signal broadcasted through a channel specified in the control signal.

Please replace the paragraph at page 194, prenumbered lines 15-25, with the following rewritten paragraph:

Subsequently, at the next step S293, the recording-setting section 143 extracts information on a recommended program for the present time from the ~~program recommendation~~ recommended-program list 109. The recording-setting section 143 then acquires information required for recording from the extracted information and supplies the acquired information to the recording control section 145. The acquired information required for recording includes broadcasting start as well as broadcasting end times of a program to be recorded and a channel through which the program is broadcasted.

Please replace the paragraph at page 197, prenumbered lines 14-23, with the following rewritten paragraph:

That is to say, the distribution server 171 comprises the data acquisition section 21 and the data transmission section 25, which are also employed in the distribution server 5 as explained before by referring to Fig. 2. The distribution server 171 reads out streaming data from the streaming-data database 6 or meta data from the meta-data database 7 or EPG data including meta data, and transmits the streaming data or the meta data to the EPG reception apparatus [[8]] 9 or the television reception apparatus 4 by way of the network 8.

Please replace the paragraph at page 197, prenumbered line 24, to page 198, prenumbered line 17, with the following rewritten paragraph:

The program-recommendation process apparatus 191 has a configuration identical with that of the program-recommendation process apparatus 10 explained earlier by referring to Fig. 13 except that the program-recommendation process apparatus 191 also includes the meta-data extraction section 22 and the program-vector generation section 23, which are employed in the distribution server 5 shown in Fig. 2. In addition to the processing carried out by the program-recommendation process apparatus 10, the program-recommendation process apparatus 191 also performs program-vector generation processing 1 explained earlier by referring to the flowchart shown in Fig. 3, program-vector generation processing 2 explained earlier by referring to the flowchart shown in Fig. 6, grouping processing 1 explained earlier by referring to the flowchart shown in Fig. 7 and grouping processing 2 explained earlier by referring to the flowchart shown in Fig. 8.